Patient Safety
December, 2003

1: Am J Health Syst Pharm. 2003 Nov 15;60(22):2368, 2370; author reply 2370.
Patient-safety mandates in ambulatory care.
Clause SL.
Publication Types:
Comment
Letter
PMID: 14652990 [PubMed - in process]

2: Am J Ophthalmol. 2003 Nov;136(5):836-45.
Treatment of choroidal neovascularization in central serous chorioretinopathy by photodynamic therapy with verteporfin.
Chan WM, Lam DS, Lai TY, Yuen KS, Liu DT, Chan CK, Chen WQ.
Department of Ophthalmology & Visual Sciences, The Chinese University of Hong Kong, Hong Kong Eye Hospital, Hong Kong, Republic of China.
PURPOSE: To evaluate the safety and efficacy of photodynamic therapy (PDT) with verteporfin in the treatment of patients with choroidal neovascularization (CNV) secondary to central serous chorioretinopathy (CSC). DESIGN: Open-label, two-center, noncomparative, prospective interventional case series. METHODS: Consecutive patients with subfoveal or juxtafoveal CNV secondary to CSC were recruited and treated with a standard regimen of PDT with verteporfin. At regular 3-month follow-up examinations, re-treatment was considered if fluorescein angiography showed evidence of leakage. Outcome measures included the proportion of patients who had improvement (gained 2 more lines), stable, or loss (dropped in 2 or more lines) in vision at the final follow-up and the changes in best-corrected visual acuity (BCVA) from baseline. RESULTS: Ten eyes of 10 patients were recruited into the study. The mean age of the patients was 57.3 years with a mean follow-up duration of 12.6 months. At the last follow-up, six (60%) eyes gained 2 or more lines of BCVA with four (40%) patients having final BCVA of within 1 line. No patient lost 2 or more lines of BCVA. The mean logarithm of the minimal angle of resolution BCVA improvement after PDT was 2.4 lines (Wilcoxon signed-rank test, P =.013). No patient suffered serious ocular or systemic complications from PDT. CONCLUSIONS: Photodynamic therapy with verteporfin therapy is a safe and well-tolerated treatment in patients with CNV associated with CSC. A randomized, controlled trial with a longer follow-up period is warranted to further study the efficacy of PDT in the management of CNV secondary to CSC.
Publication Types:
Clinical Trial
Multicenter Study
PMID: 14597034 [PubMed - indexed for MEDLINE]

3: Am J Surg. 2003 Nov;186(5):472-5.
Has the pendulum swung too far in postoperative pain control?
Taylor S, Voytovich AE, Kozol RA.
Department of Surgery and Medicine, University of Connecticut School of Medicine, 263 Farmington Avenue, Farmington, CT 06030, USA.
BACKGROUND: The Joint Commission on Accreditation of Health Care Organizations declared pain level to be the "fifth vital sign." This has led to increased efforts to reduce patients' pain scores. Current postoperative analgesic modalities may not be entirely safe. We prospectively studied pain and sedation scores to determine whether postoperative patients were reaching sedation levels similar to patients undergoing "conscious sedation" (eg, colonoscopy cases). "Conscious sedation" patients have been shown to achieve states of sedation, which at time result in oxygen desaturation. METHODS: Fifty-three patients within three groups were compared in an observational study. Group 1 included "conscious sedation" patients undergoing colonoscopy. Group 2 included postoperative patients using patient-controlled analgesia (PCA). Group 3 included postoperative patients under nurse-controlled analgesia (NCA). Levels of sedation were monitored using the 6-point Ramsay sedation scale. Pain and oxygen saturation were monitored using an 11-point verbal scale and finger pulse oximetry, respectively. Patients were monitored for up to 12 hours in the postoperative period or for the length of their colonoscopy procedure. RESULTS: Patients in groups 1 and 2 reached similar sedation levels. CONCLUSIONS: Patients may reach dangerous levels of sedation during the first 24 hours postoperatively. Patients using PCA devices warrant close observation during this time period.
PMID: 14599609 [PubMed - indexed for MEDLINE]

4: Anaesthesia. 2003 Nov;58(11):1070-8.
Making monitoring 'work': human-machine interaction and patient safety in anaesthesia.
Smith AF, Mort M, Goodwin D, Pope C.
Department of Anaesthesia Institute for Health Research, Lancaster University, Lancaster, LA1 4YT, UK. andrew.smith@rli.mbht.nhs.uk
This study aimed to explore the use of electronic monitoring within the context of anaesthetic practice. We conducted workplace observation of, and interviews with, anaesthetists and other anaesthetic staff in two UK hospitals. Transcripts were analysed inductively for recurrent themes. Whilst formal sources of knowledge in anaesthesia deal with the issue of monitoring in terms of theoretical principles and performance specifications of devices, anaesthetists in practice often 'disbelieve' monitoring information. They call on and integrate other sources of knowledge about the patient, especially from their clinical assessment. The ability to distinguish 'normal' and 'abnormal' findings is vital. Confidence in electronic information varies with experience, as does the degree to which electronic information may be considered 'redundant'. We conclude that electronic monitoring brings new dimensions of understanding but also the potential for new ways of misunderstanding. The tacit knowledge underlying the safe use of monitoring deserves greater acknowledgement in training and practice.
Publication Types:
Multicenter Study
PMID: 14616592 [PubMed - indexed for MEDLINE]

5: Ann Emerg Med. 2003 Dec;42(6):815-23.
A framework for classifying factors that contribute to error in the emergency

department.
Cosby KS.
Department of Emergency Medicine, Stroger Hospital of Cook County/Rush Medical College, Chicago, IL, USA.
The Institute of Medicine report in 1999 spurred a national movement in patient safety and focused attention on medical error as a significant cause of preventable injury and death. Throughout the past decade, the medical community has gradually acknowledged the fallibility of medical science and imperfections of our health care organizations. Before significant progress can be made to improve safety in health care, we must better understand the sources of error. This article is presented as one step in the process of change. A framework for classifying factors that contributed to errors identified in the emergency department (ED) is presented. The framework is, in its most basic form, a comprehensive checklist of all the sources of error uncovered in the course of investigating hundreds of cases referred to Stroger Hospital's emergency medicine quality assurance committee throughout the past decade. It begins with a look at error in the ED and then looks beyond the ED to examine error in the context of the wider health care system. It incorporates ideas found in safety engineering, transportation safety, human factors engineering, and our own experience in an urban, public, teaching hospital ED.
PMID: 14634609 [PubMed - in process]

6: Arch Intern Med. 2003 Nov 24;163(21):2585-9.
Conversion from intravenous to oral medications: assessment of a computerized intervention for hospitalized patients.
Fischer MA, Solomon DH, Teich JM, Avorn J.
Division of Pharmacoepidemiology and Pharmacoeconomics, Departments of Medicine
and Emergency Medicine, Brigham and Women's Hospital, Harvard Medical School, 1620 Tremont Street, Suite 3030, Boston, MA 02120, USA. mfischer@partners.org
BACKGROUND: Many hospitalized patients continue to receive intravenous medications longer than necessary. Earlier conversion from the intravenous to the oral route could increase patient safety and comfort, reduce costs, and facilitate earlier discharge from the hospital without compromising clinical care. We examined the effect of a computer-based intervention to prompt physicians to switch appropriate patients from intravenous to oral medications. METHODS: This study was performed at Brigham and Women's Hospital, an academic
tertiary care hospital at which all medications are ordered online. We targeted 5 medications with equal oral and intravenous bioavailability: fluconazole, levofloxacin, metronidazole, ranitidine, and amiodarone. We used the hospital's computerized order entry system to prompt physicians to convert appropriate intravenous medications to the oral route. We measured the total use of the targeted medications via each route in the 4 months before and after the implementation of the intervention. We also measured the rate at which physicians responded to the intervention when prompted. RESULTS: The average intravenous defined daily dose declined by 11.1% (P =.002) from the preintervention to the postintervention period, while the average oral defined daily dose increased by 3.7% (P =.002). Length of stay, case-mix index, and total drug use at the hospital increased during the study period. The average total monthly use of the intravenous preparation of all of the targeted medications declined in the 4 months after the intervention began, compared with the 4 months before. In 35.6% of 1045 orders for which a prompt was generated, the physician either made a conversion from the intravenous to the oral version

or canceled the order altogether. CONCLUSIONS: Computer-generated reminders can
produce a substantial reduction in excessive use of targeted intravenous medications. As online prescribing becomes more common, this approach can be used to reduce excess use of intravenous medications, with potential benefits in patient comfort, safety, and cost.
PMID: 14638558 [PubMed - in process]

7: Arch Intern Med. 2003 Nov 10;163(20):2532; author reply 2533.
Comment on:
Arch Intern Med. 2003 Apr 28;163(8):901-8.
Oral anticoagulant and dental procedures.
Chow KM, Szeto CC.
Publication Types:
Comment
Letter
PMID: 14609793 [PubMed - indexed for MEDLINE]

8: Arch Ophthalmol. 2003 Nov;121(11):1543-7.
Prevention of corticosteroid-induced intraocular pressure elevation using ISV-205.
Stewart WC; ISV-205 Study Group.
Pharmaceutical Research Network, LLC, Charleston, SC 29412-2464, USA. prnc@bellsouth.net
OBJECTIVE: To determine whether a topical ophthalmic diclofenac sodium formulation containing a proprietary polymeric drug delivery system (ISV-205), when dosed concomitantly with 1% prednisolone acetate, is effective in blocking the intraocular pressure (IOP) response in humans. DESIGN: This was a multicenter, prospective, double-masked, parallel, vehicle-controlled study. We included 136 first-degree relatives of subjects with primary open-angle glaucoma. Subjects were randomized to receive 0.06% or 0.1% ISV-205 or vehicle while concomitantly receiving 1% prednisolone for 6 weeks. RESULTS: During the treatment period, the mean +/- SD maximum IOP increase (7.3 +/- 6.5 mm Hg for vehicle, 4.9 +/- 4.6 mm Hg for 0.06% ISV-205, and 5.9 +/- 4.9 mm Hg for 0.1% ISV-205) was significantly less with the 0.06% formulation than with placebo (P =.02). The overall mean change in IOP was 3.6, 2.0, and 2.4 mm Hg in the vehicle, 0.06% ISV-205, and 0.1% ISV-205 groups, respectively, which was significant between the 0.06% ISV-205 and vehicle groups (P =.05). Eight (17%) of the 46 subjects receiving vehicle terminated the study because of high IOPs, compared with 1 (2%) of the 45 subjects receiving 0.06% ISV-205 and 3 (7%) of the 45 subjects receiving 0.1% ISV-205 (P =.03). The number of subjects with a clinically important corticosteroid response (> or =10-mm Hg increase) was greater in the vehicle group (12 [28%] of 43 subjects) compared with the 0.06% ISV-205 group (3 [7%] of 42 subjects) (P =.01). Adverse events were similar between treatments. CONCLUSIONS: This study suggests that ISV-205 limits the corticosteroid-induced elevated IOP in first-degree relatives of subjects with glaucoma. Future studies are needed to confirm these results and explore the possible role of this drug in treating glaucoma.
Publication Types:
Clinical Trial
Multicenter Study
Randomized Controlled Trial
PMID: 14609909 [PubMed - indexed for MEDLINE]

9: Chest. 2003 Oct;124(4):1584-93.

Comment in:
Chest. 2003 Oct;124(4):1196-8.
Inhaled fluticasone propionate by diskus in the treatment of asthma: a comparison of the efficacy of the same nominal dose given either once or twice a day.
Purucker ME, Rosebraugh CJ, Zhou F, Meyer RJ.
Division of Pulmonary and Allergy Drug Products, Center for Drug Evaluation and Research, US Food and Drug Administration, Rockville, MD 20857, USA.
STUDY OBJECTIVE: In September 2000, the US Food and Drug Administration (FDA) approved the use of Flovent Diskus (FD) [fluticasone propionate; GlaxoSmithKline; Research Triangle Park, NC], which is an orally inhaled, dry-powder corticosteroid, for the maintenance treatment of asthma at dosages of 50 to 1,000 microg administered twice-daily. Once-daily dosage regimens did not receive approval. This article will detail six clinical trials, five of which incorporated comparative once-daily and twice-daily treatment arms of the same nominal dose of FD. DESIGN: Six 12-week, randomized, double-blind, placebo-controlled studies in patients with mild-to-moderate asthma, including two pediatric asthma trials (patient age, 4 to 11 years) of total daily doses of fluticasone propionate (FP) of 100 or 200 microg, and four adult and adolescent studies of total daily doses of FP of 100, 200, or 500 microg. RESULTS: Twice-daily dosing was numerically superior to once-daily dosing at the same nominal dose in all comparative studies for the primary end point, change in predose FEV(1). In five trials, the results of the once-daily dosage of FP were statistically indistinguishable from those with placebo. One trial demonstrated the superiority of FP, 500 microg once-daily, over placebo; however, the effect size was half that observed with twice-daily dosing. Once-daily FP dosing showed no advantage in safety or in patient adherence to medication. CONCLUSIONS: In the FDA review of once-daily dosing of the FD regimen, 100 or 200 microg once-daily dosing was not shown to be significantly better than placebo. FP 500 microg once-daily was found to be superior to placebo, but at about one half the effect size as the same nominal dose given bid. No advantage in patient safety or adherence was demonstrated for once-daily administration over twice-daily administration, and once-daily administration is not currently recommended.
Publication Types:
Clinical Trial
Randomized Controlled Trial
PMID: 14555594 [PubMed - indexed for MEDLINE]

10: Cochrane Database Syst Rev. 2003;(4):CD004423.
Preoperative fasting for adults to prevent perioperative complications.
Brady M, Kinn S, Stuart P.
Nursing Research Initiative for Scotland, Cowcaddens Road, Glasgow, UK, G4 0BA.
BACKGROUND: Fasting before general anaesthesia aims to reduce the volume and acidity of stomach contents during surgery, thus reducing the risk of regurgitation/aspiration. Recent guidelines have recommended a shift in fasting policy from the standard 'nil by mouth from midnight' approach to more relaxed policies which permit a period of restricted fluid intake up to a few hours before surgery. The evidence underpinning these guidelines however, was scattered across a range of journals, in a variety of languages, used a variety of outcome measures and methodologies to evaluate fasting regimens that differed in duration and the type and volume of intake permitted during a restricted fasting period. Practice has been slow to change. OBJECTIVES: To systematically review the effect of different preoperative fasting regimens (duration, type and volume of permitted intake) on perioperative complications and patient wellbeing (including aspiration, regurgitation and related morbidity, thirst, hunger, pain, nausea, vomiting, anxiety) in different adult populations. SEARCH

STRATEGY: Electronic databases, conference proceedings and reference lists from relevant articles were searched for studies of preoperative fasting in August 2003 and experts in the area were consulted. SELECTION CRITERIA: Randomised controlled trials which compared the effect on postoperative complications of different preoperative fasting regimens on adults were included. DATA COLLECTION AND ANALYSIS: Details of the eligible studies were independently extracted by two reviewers and where relevant information was unavailable from the text attempts were made to contact the authors. MAIN RESULTS: Thirty eight randomised controlled comparisons (made within 22 trials) were identified. Most were based on 'healthy' adult participants who were not considered to be at increased risk of regurgitation or aspiration during anaesthesia. Few trials reported the incidence of aspiration/regurgitation or related morbidity but relied on indirect measures of patient safety i.e. intra-operative gastric volume and pH. There was no evidence that the volume or pH of participants' gastric contents differed significantly depending on whether the groups were permitted a shortened preoperative fluid fast or continued a standard fast. Fluids evaluated included water, coffee, fruit juice, clear fluids and other drinks (e.g. isotonic drink, carbohydrate drink). Participants given a drink of water preoperatively were found to have a significantly lower volume of gastric contents than the groups that followed a standard fasting regimen. This difference was modest and clinically insignificant. There was no indication that the volume of fluid permitted during the preoperative period (i.e. low or high) resulted in a difference in outcomes from those participants that followed a standard fast. Few trials specifically investigated the preoperative fasting regimen for patient populations considered to be at increased risk during anaesthesia of regurgitation/aspiration and related morbidity. REVIEWER'S CONCLUSIONS: There was no evidence to suggest a shortened fluid fast results in an increased risk of aspiration, regurgitation or related morbidity compared with the standard 'nil by mouth from midnight' fasting policy. Permitting patients to drink water preoperatively resulted in significantly lower gastric volumes. Clinicians should be encouraged to appraise this evidence for themselves and when necessary adjust any remaining standard fasting policies (nil-by-mouth from midnight) for patients that are not considered 'at-risk' during anaesthesia.
PMID: 14584013 [PubMed - in process]

11: Drug Saf. 2003;26(13):937-50.
Reducing medication errors: a regional approach for hospitals.
McCarter TG, Centafont R, Daly FN, Kokoricha T, Leander Po JZ.
Main Line Health System, Bryn Mawr, Pennsylvania 19010, USA. mccarter@mlhs.org
Since the Institute of Medicine's report, To Err Is Human, and the subsequent publication, Crossing the Quality Chasm, the subject of reducing medical errors has gained considerable attention from patients, healthcare providers, employers and government organisations in the US. Most nonoperative errors are related to medications. Medication errors lead not only to negative repercussions subjectively experienced by both the patient and the healthcare staff, but also to additional expenditures due to complications. Education, adapting new safety systems and technology, and having clinical pharmacists play a larger role in the medication process can all help in solving the problem of medication errors. Designing and executing a rational system to reduce medication errors is particularly germane in the current era of increased demands for quality healthcare in the setting of cost-containment pressures. In the Delaware Valley (Philadelphia and surrounding area) of Pennsylvania, USA, a consortium of healthcare providers in cooperation with the Health Care Improvement Foundation (HCIF), and two non-profit oganisations--the ECRI (formerly the Emergency Care

Research Institute) and the Institute for Safe Medication Practices (ISMP)--have combined to establish and promote safe medication practices under a programme known as the Regional Medication Safety Program for Hospitals. At the core of the programme are 16 medication safety goals, which centre on establishing an institutional culture of safety, modifying infrastructure and clinical practice to reflect this culture, and using technology to facilitate these changes. It is believed that this rational campaign to improve patient safety may serve as a paradigm for other regions around the world.
PMID: 14583069 [PubMed - in process]

12: Health Facil Manage. 2003 Nov;16(11):31-3.
Device dangers. Complying with the JCAHO's patient safety goals for clinical/biomedical equipment.
Keil O.
Provena Mercy Center, Aurora, Ill., USA. ecxprt@aol.com
A relatively new requirement of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) accrediation process is compliance with several National Patient Safety Goals (NPSGs) selected from the list of alerts by the JCAHO's Sentinel Event Alert Advisory Group.
PMID: 14655433 [PubMed - in process]

13: Health Serv J. 2003 Nov 13;113(5881):suppl 7-13.
Keep in step. Follow the seven steps to patient safety.
[No authors listed]
PMID: 14655399 [PubMed - in process]

14: Hosp Peer Rev. 2003 Nov;28(11):suppl 1-4.
Patient safety offers new opportunities in quality field.
[No authors listed]
PMID: 14601533 [PubMed - indexed for MEDLINE]

15: Int J Qual Health Care. 2003 Dec;15 Suppl 1:I49-I59.
Adverse drug events and medication errors in Australia.
Runciman WB, Roughead EE, Semple SJ, Adams RJ.
Department of Anaesthesia and Intensive Care, Royal Adelaide Hospital and University of Adelaide, Australian Patient Safety Foundation, Adelaide, Quality Use of Medicines and Pharmacy Research Centre, School of Pharmaceutical, Molecular and Biomedical Sciences, University of South Australia, Adelaide, Department of Medicine, University of Adelaide, Australia.
PURPOSE: To review information about adverse drug events (ADEs) and medication errors in Australia. DATA SOURCES: Systematic literature reviews and reports from data collections of the Australian Bureau of Statistics, Institute of Health and Welfare, Council for Health Care Standards and Patient Safety Foundation. RESULTS: (medical record reviews): We have shown that 2-4% of all hospital admissions, and up to 30% for patients > 75 years of age, are medication-related; up to three-quarters are potentially preventable. Results (routine data collections): Routine death certificate and hospital discharge data coded using the International Classification of Diseases capture less than half as many ADEs as medical record reviews. Of coded adverse events that contributed to death, 27% involved an ADE, as did 20% of adverse events identified at discharge and 43% at general practice encounters. There is a strong correlation between increases in medication use and rates of adverse drug reactions (ADRs) associated with hospitalization. Results (drugs implicated): These were similar in all the above studies: anticoagulants, anti-inflammatory drugs, opioids, anti-neoplastics, antihypertensives, antibiotics, cardiac

glycosides, diuretics, hypoglycaemic agents, steroids, hypnotics, anticonvulsants, and antipsychotics. Results (clinical indicators): An ADE is reported in 1% of hospital admissions, while some hospitals do not report ADRs to the national collection. Only three-quarters of patients with acute myocardial infarction receive thrombolytics within 1 hour of presentation. Five per cent of patients on warfarin record an international normalized ratio > 5, and 1%, 0.05%, and 0.2% -suffer abnormal bleeding, cerebral haemorrhage, or death, respectively. Results (the Australian Incident Monitoring System): Twenty-six per cent of 27 000 hospital-related incidents were medication-related, as were 36% of 2000 anaesthesia-related incidents, and 50% of 2500 general practice incidents. Results (errors): Errors occur in 15-20% of drug administrations when ward stock systems are used and 5-8% when individual patient systems are used. Previous allergic reactions to drugs may not be recorded more than 75% of the time. CONCLUSION: ADEs are common in the Australian health system. Anticoagulant, anti-inflammatory, and cardiovascular drugs feature prominently as preventable, high impact problems, and collectively make up over one-half of all ADEs. Methods for monitoring and preventing ADEs should be progressively improved.
PMID: 14660523 [PubMed - as supplied by publisher]

16: Int J Qual Health Care. 2003 Dec;15 Suppl 1:I31-I40.
Improving patient safety across a large integrated health care delivery system.
Frankel A, Gandhi TK, Bates DW.
Partners HealthCare System, Boston, MA, Brigham and Women's Hospital, Boston, MA, USA.
OBJECTIVE: Patient safety is moving up the list of priorities for hospitals and health care delivery systems, but improving safety across a large organization is challenging. We sought to create a common patient safety strategy for the Partners HealthCare system, a large, integrated, non-profit health care delivery system in the United States. DESIGN: Partners identified a central Patient Safety Officer, who then formed a Patient Safety Advisory Group with local expert members, as well as a Patient Safety Leaders Group comprised of personnel responsible for patient safety at each member institution. The latter group meets monthly to help determine future projects and to share the results of piloting and implementation. There was broad consensus that interventions should include the areas of culture change, process change, and process measurement. SETTING: A large, integrated health care delivery system in the Boston, Massachusetts, area. RESULTS: Key milestones to date include implementation of Executive WalkRounds, development of accountability principles, agreement to create a common system-wide adverse event reporting system, and agreement to implement computerized physician order entry in all hospitals. These efforts have heightened awareness of patient safety considerably within the network. Most influenced to date have been the senior leaders of the hospitals, which has resulted in substantial support for patient safety initiatives. CONCLUSIONS: This loosely integrated delivery system represents a daunting landscape for the development and institution of patient safety concepts. Many projects aimed at different components of patient safety must occur at the same time for significant change, yet culture and care-related beliefs vary substantially within the system, and measurement is especially challenging. Moreover, with many potential interventions, and limited resources, prioritization and selection is difficult. Nonetheless, consensus about some issues has been reached, in particular because of a well delineated patient safety structure. We believe the net result will be substantial improvement in patient safety.
PMID: 14660521 [PubMed - in process]

17: Int J Qual Health Care. 2003 Dec;15 Suppl 1:I25-I30.
The US Agency for Healthcare Research and Quality's activities in patient safety research.
Meyer GS, Battles J, Hart JC, Tang N.
Massachusetts General Physicians Organization, Boston, MA, Center for Quality Improvement and Patient Safety, Agency for Healthcare Research and Quality, Rockville, MD, Harvard Medical School, Boston, MA, USA.
PURPOSE: To update the international community on the US Agency for Healthcare Research and Quality's (AHRQ) recent and current activities in improving patient safety. DATA SOURCES: Review of the literature concerning the importance of patient safety as a health care quality issue, international perspectives on patient safety, a review of research solicitations, and early results of funded studies. STUDY SELECTION: A representative sample of patient safety studies from those currently being funded by AHRQ. RESULTS: In response to a growing interest in patient safety in general and a recent US Institute of Medicine report on patient safety in particular, the US Agency for Healthcare Research and Quality has refocused its quality research mission. In the fiscal year 2002, AHRQ spent US$55 million on patient safety research. This investment was spread across six complementary research areas: (1) health systems error reporting, analysis, and safety improvement research demonstrations; (2) Clinical Informatics to Promote Patient Safety (CLIPS); (3) Centers of Excellence for patient safety research and practice (COE); (4) Developmental Centers for Evaluation and Research in Patient Safety (DCERPS); (5) The Effect of Health Care Working Conditions on Quality of Care; and (6) Partnerships for Quality: Patient Safety Research Dissemination and Education. Internal teams of researchers at AHRQ have published studies on patient safety, such as documenting the impact of medication errors. In addition to funding research on patient safety, AHRQ is an integral partner in several national and international collaborations to form strategic synergies that build upon each member organization's strengths, reduce redundant efforts, and benefit from each other's successes. As evidence on patient safety is generated, AHRQ also serves the important mission of disseminating information to the public. CONCLUSION: The patient safety research field has undergone a period of rapid evolution. It is now incumbent upon the international health care quality improvement community to translate the future results of this research investment into improved safety for patients.
PMID: 14660520 [PubMed - in process]

18: J Am Med Inform Assoc. 2003 Nov 21 [Epub ahead of print].
Computerized Physician Order Entry (CPOE) Helpful or Harmful?
Berger RG, Kichak JP.
University of North Carolina School of Medicine and Health System, Chapel Hill, NC.
Computerized Physician Order Entry (CPOE) is touted as a major improvement in patient safety, primarily as a result of the Institute of Medicine 1999 report on medical errors, and the subsequent formation of the Leapfrog group of companies to preferentially direct their employees' health care to those institutions that install such systems (as part of directives that Leapfrog feels will improve patient care). Though the literature suggests that such systems have the potential to improve patient outcomes through decrease of adverse drug events, actual improvements in medical outcomes have not been documented. Installation of such systems may actually increase the number of adverse drug events and result in higher overall medical costs, particularly in the first few years of their adoption.
PMID: 14633934 [PubMed - as supplied by publisher]

19: J Clin Oncol. 2003 Nov 15;21(22):4151-6.
Intensive methotrexate and cytarabine followed by high-dose chemotherapy with autologous stem-cell rescue in patients with newly diagnosed primary CNS lymphoma: an intent-to-treat analysis.
Lauren E A, Moskowitz CH, Mason WP, Crump M, Stewart D, Forsyth P, Paleologos N, Correa DD, Anderson ND, Caron D, Zelenetz A, Nimer SD, DeAngelis LM.

Departments of Neurology and Medicine and the Office of Clinical Research, Memorial Sloan-Kettering Cancer Center, New York, NY 10021, USA. abreyl@mskcc.org
PURPOSE: To assess the safety and efficacy of intensive methotrexate-based chemotherapy followed by high-dose chemotherapy (HDT) with autologous stem-cell rescue in patients with newly diagnosed primary CNS lymphoma (PCNSL). PATIENTS AND METHODS: Twenty-eight patients received induction chemotherapy using high-dose systemic methotrexate (3.5 g/m2) and cytarabine (3 g/m2 daily for 2 days). Fourteen patients with chemosensitive disease evident on neuroimaging then received high-dose therapy using carmustine, etoposide, cytarabine, and melphalan with autologous stem-cell rescue. RESULTS: The objective response rate to the induction-phase chemotherapy was 57%, and median overall survival is not yet assessable, with a median follow-up time of 28 months. The overall median event-free survival time is 5.6 months for all patients and 9.3 months for 14 patients who underwent transplantation. Six of these 14 patients (43%) remained disease-free at last follow-up. Treatment was well tolerated; there was one transplantation-related death. Prospective neuropsychologic evaluations have revealed no evidence of treatment-related neurotoxicity. CONCLUSION: This treatment approach is feasible in patients with newly diagnosed PCNSL without evidence of significant related neurotoxicity. Although the transplantation results are similar to those achieved in patients with aggressive or poor-prognosis systemic lymphoma, the low response rate to induction chemotherapy and the significant number of patients who experienced relapse soon after HDT suggest that more aggressive induction chemotherapy may be warranted.
PMID: 14615443 [PubMed - indexed for MEDLINE]

20: J Gerontol Nurs. 2003 Nov;29(11):34-42.
BedSAFE. A bed safety project for frail older adults.
Hoffman SB, Powell-Cope G, MacClellan L, Bero K.
Interprofessional Team Training and Development, James A. Haley Veterans' Hospital (11J), 13000 Bruce B. Downs Blvd., Tampa, FL 32612, USA.
In response to heightened awareness of patient safety, restraint reduction, and the potential for life-threatening entrapment caused by bed rails, a quality improvement program entitled BedSAFE was conducted to systematically and safely decrease the use of bed rails in three nursing home care units. This article describes an interdisciplinary process of individualized patient assessment, selection of appropriate alternatives for residents, compliance monitoring, training, and monitoring of patient outcomes including falls and injuries related to falls from bed.
Publication Types:
Evaluation Studies
PMID: 14619316 [PubMed - indexed for MEDLINE]

21: J Healthc Inf Manag. 2003 Fall;17(4):58-61.
Advancing the state of data integration in healthcare.
Sensmeier J.
There is growing consensus that clinical information systems will provide the bridge to advancing the integration of information systems in healthcare. In

spite of developments in technology that have enabled some organizations to integrate clinical information with care delivery in ways that can promote safer, more efficient patient care, the majority of healthcare has yet to achieve this goal. Why aren't we there yet?
PMID: 14558373 [PubMed - indexed for MEDLINE]

22: J Med Syst. 2003 Dec;27(6):543-51.
Systems factors in the reporting of serious medication errors in hospitals.
Crawford SY, Cohen MR, Tafesse E.
Department of Pharmacy Administration, University of Illinois at Chicago, Chicago, Illinois 60612, USA. crawford@uic.edu
Underreporting of medication errors poses a threat to quality improvement initiatives. Hospital risk management programs encourage medication error reporting for effective management of systems failures. This study involved a survey of 156 medical-surgical hospitals in the United States to evaluate systems factors associated with the reporting of serious medication errors. Prior to controlling for bed size, a multivariate logistic regression model showed increased reporting of medication errors in hospitals with 24-h pharmacy services, presumably because of better error reporting systems. When number of occupied beds was included, the final model demonstrated bed size to be the only statistically significant factor. Increased reporting rates for serious medication errors warrant further evaluation, but higher error reporting may paradoxically indicate improved error surveillance. Results suggest that increased availability of pharmacist services results in opportunities for more diligent systematic efforts in detecting and reporting medication errors, which should lead to improved patient safety.
PMID: 14626479 [PubMed - in process]

23: J Med Syst. 2003 Dec;27(6):499-501.
Patient safety and medication errors.
Mullner RM.
Health Policy and Administration (MC 932), School of Public Health, University of Illinois at Chicago, Room 788, 1603 West Taylor Street, Chicago, Illinois 60612-7259, USA.
PMID: 14626475 [PubMed - in process]

24: J Nurs Adm. 2003 Dec;33(12):630-8.
Understanding the complexity of registered nurse work in acute care settings.
Ebright PR, Patterson ES, Chalko BA, Render ML.
SUMMARY: Nursing shortages and patient safety mandates require nursing managers and administrators to consider new ways of understanding the complexity of healthcare provider work in actual situations. The authors report findings from a study guided by an innovative research approach to explore factors affecting registered nurse performance during real work on acute care medical-surgical units. Our findings suggest beginning targets for interventions to improve patient safety, as well as recruitment and retention, through support for registered nurse work.
PMID: 14665827 [PubMed - in process]

25: J Pain Palliat Care Pharmacother. 2003;17(1):116-9.
Joint commission announces national patient safety goals.
[No authors listed]
Publication Types:
News
PMID: 14640349 [PubMed - indexed for MEDLINE]

26: Jt Comm J Qual Saf. 2003 Nov;29(11):586-97.
Findings from the ISMP Medication Safety Self-Assessment for hospitals.
Smetzer JL, Vaida AJ, Cohen MR, Tranum D, Pittman MA, Armstrong CW.
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BACKGROUND: Hospital medication practices should be assessed, awareness of the characteristics of a safe medication system heightened, and baseline data to identify national priorities established. DESIGN: A cross-sectional survey of U.S. hospitals (N = 6,180) was conducted in May 2000. The survey instrument contained 194 self-assessment items organized into 20 core characteristics and 10 larger domains. Hospitals were asked to voluntarily submit their confidential assessment data to the Institute for Safe Medication Practices (ISMP) for aggregate analysis. METHOD: A weighting structure was applied to the individual items and used to calculate core characteristic scores, domain scores, and overall self-assessment scores. These scores were then compared to identify areas most in need of improvement. RESULTS: The 1,435 participating hospitals scored highest in domains related to drug storage and distribution; environmental factors; infusion pumps; and medication labeling, packaging, and nomenclature issues. These hospitals scored lowest in domains related to accessible patient information, communication of medication orders, patient education, and quality processes such as double-check systems and organizational culture. CONCLUSIONS: Enormous opportunities exist to improve medication safety, especially in domains related to culture, information management, and communication.
PMID: 14619351 [PubMed - indexed for MEDLINE]

27: Jt Comm J Qual Saf. 2003 Nov;29(11):598-609.
What does it take? A case study of radical change toward patient safety.
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BACKGROUND: Adopting a human factors engineering approach to patient safety requires a radical behavioral shift from "blame and shame," which emphasizes further training, to systems thinking, which also emphasizes improved system design. A medical device manufacturer appeared to initiate this radical shift after exhibiting the traditional approach for years. METHODOLOGY: The research focused on a patient-controlled analgesia device. A qualitative case study methodology was used to study events in the period from the device's introduction (1988) until the start of the behavioral change (May 2001). Data on 50 relevant events were analyzed. The tabular summary was analyzed for evidence of the prerequisites predicted by punctuated equilibrium theory, and the graphical time line was analyzed for evidence of vertical alignment across levels. RESULTS: Radical behavioral change was preceded by a critical 9.5-month period with three characteristics: new corporate leadership, perceived poor corporate performance, and aligned disruptions occurring within a relatively short time at almost every level in the external environment in which the company operated. DISCUSSION: These findings are consistent with punctuated equilibrium theory, according to which organizations can experience long periods of resistance to change followed by fast revolutionary change (approximately two years). The findings also have implications for when and how to introduce patient safety policy interventions to "tilt the playing field" and thereby increase the likelihood that such reforms will succeed.
PMID: 14619352 [PubMed - indexed for MEDLINE]

28: Mod Healthc. 2003 Nov 10;33(45):8, 11.

Quality vs. quantity. IOM report: hospitals must cut back workload and hours of nurses to maintain patient safety.
Morrissey J.
Publication Types:
News
PMID: 14666543 [PubMed - in process]

29: Nurs Adm Q. 2003 Oct-Dec;27(4):324-9.
A collaborative perspective on nursing leadership in quality improvement. The foundation for outcomes management and patient/staff safety in health care environments.
Gantz NR, Sorenson L, Howard RL.

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By 2004, only organizations whose institutional operating strategies are built on a continual state of readiness and include performance improvement practices throughout the organization are going to successfully meet Joint Commission on Accreditation of Healthcare Organizations standards. As stewards of patient care, nurses maintain a unique role in identifying and guiding the intervention processes central to quality care, which prepares them to become key players/designers of a paradigm that demonstrates commitment to establishing and maintaining quality care. However, without recognition and support from organization leadership and physicians, the opportunity to effectively use the capabilities of nursing may be lost. The collaborative perspectives offered here attest to the fact that mutual belief and vision, coupled with creativity, strategic planning, and implementation, can effectively mobilize resources to establish priority measures and achieve quality patient/safety outcomes within the organization. Shifting the paradigm from just meeting the standards to continual readiness and performance improvement throughout the organization then becomes mission and mantra.
PMID: 14649024 [PubMed - in process]

30: Nurs Manage. 2003 Dec;34(12):34-8.
Polished automation tools allow patient safety to shine.
Strohecker S.
SUMMARY: Follow the impact of computerized provider order entry on an acute care team.
PMID: 14668683 [PubMed - in process]

31: Nurs Manage. 2003 Dec;34(12):24-6.
Evolving infection control standards challenge compliance.
Gilmore GK.
SUMMARY: Advances target JCAHO patient safety goal compliance, hand hygiene and
antisepsis, intravenous site preparation, and West Nile Virus prevention.
PMID: 14668681 [PubMed - in process]

32: Nurs Stand. 2003 Nov 12-18;18(9):47-53; quiz 54-5.
Suctioning techniques for the removal of respiratory secretions.
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Suctioning techniques are a necessary nursing intervention to remove respiratory secretions and maintain optimum ventilation and oxygenation in patients who are unable to get rid of these secretions independently. This intervention can induce problems and it is important that the correct procedure is adhered to so that patient safety and comfort are maintained. Nurses should be competent in assessing the need for suction. The decision to perform this procedure should be based on the patient's clinical signs and symptoms and should not be undertaken as a matter of routine.
PMID: 14649194 [PubMed - in process]

33: Online J Issues Nurs. 2003;8(3):1.
Patient safety: who guards the patient.
Rice RB.
brice@collaborativeworks.net
PMID: 14656190 [PubMed - in process]

34: Psychiatr Serv. 2003 Dec;54(12):1599-603.
Patient Safety Forum: Examining the Evidence: Do we know if psychiatric inpatients are being harmed by errors? What level of confidence should we have in data on the absence or presence of unintended harm?
Bates DW, Shore MF, Gibson R, Bosk C.
Editor's Note: In the May issue of Psychiatric Services Benjamin Grasso, M.D., and his colleagues reported the results of a study showing that psychiatric inpatients are at substantial risk of harm from medication errors. An accompanying Taking Issue piece by Dr. Grasso and David W. Bates, M.D., urged all psychiatrists to learn more about medication errors and to scrutinize methods of error detection in facilities where they work. To encourage attention to medical errors in psychiatry, we asked Dr. Grasso to be guest editor of Patient Safety Forum, a new occasional feature of the journal in which expert discussants address important questions in this area. Contributing to this month's forum are David W. Bates, M.D., chief of the division of general internal medicine at Brigham and Women's Hospital and associate professor of medicine at Harvard Medical School (e-mail, dbates@partners.org); Miles F. Shore, M.D., Bullard professor of psychiatry at Harvard Medical School and visiting scholar at the Kennedy School of Government (e-mail, miles_shore@harvard.edu); Rosemary Gibson, author of Wall of Silence (Lifeline Press, 2003), a book of narratives on patients' and providers' experience with medical errors that describes ways to enhance patient safety (e-mail, wallofsilence2003@yahoo.com); and Charles Bosk, Ph.D., author of Forgive and Remember: Managing Medical Failure (University of Chicago Press, 2003), member of the School of Social Sciences at the Institute for Advanced Studies in Princeton, New Jersey, and professor of sociology and medical ethics at the University of Pennsylvania (e-mail, cbosk@sas.upenn.edu). Dr. Grasso, who is affiliated with the Institute for Self-Directed Care in Portland, Maine, invites readers to contribute questions for discussion (e-mail, bgrasso1@maine.rr.com).
PMID: 14645798 [PubMed - in process]

35: Public Health Rep. 2003 Nov-Dec;118(6):487-92.
Addressing the potential risks associated with ephedra use: a review of recent efforts.
Schulman S.
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The appropriate amount of oversight for dietary supplements has been a subject of debate for over a decade. This debate has come to a head recently with herbal

ephedra, which may be associated with adverse events including heart attack, stroke, seizure, and death. This article reviews and puts into context recent findings on the safety concerns related to ephedra, based primarily on adverse event reports. It presents the response from industry and the FDA in light of this evidence, and describes additional steps taken by other groups who believe that more restrictive action is required. The article concludes by observing the lack of explicit, shared criteria for determining whether a supplement is unsafe, and pointing out ways in which the experience with ephedra can be used constructively to address that problem.
Publication Types:
Review
Review, Tutorial
PMID: 14563905 [PubMed - indexed for MEDLINE]

36: Qual Saf Health Care. 2003 Dec;12 Suppl 2:II58-II63.
Administrative data based patient safety research: a critical review.
Zhan C, Miller MR.
Center for Quality Improvement and Patient Safety, Agency for Healthcare Research and Quality, Department of Health and Human Services, Rockville, MD, USA. Department of Pediatrics, Johns Hopkins University, Baltimore, MD, USA.
Administrative data are readily available, inexpensive, computer readable, and cover large populations. Despite coding irregularities and limited clinical details, administrative data supplemented by tools such as the Agency for Healthcare Research and Quality (AHRQ) patient safety indicators (PSIs) could serve as a screen for potential patient safety problems that merit further investigation, offer valuable insights into adverse impacts and risks of medical errors and, to some extent, provide benchmarks for tracking progress in patient safety efforts at local, state, or national levels.
PMID: 14645897 [PubMed - in process]

37: Qual Saf Health Care. 2003 Dec;12 Suppl 2:II33-II38.
Assessing patient safety risk before the injury occurs: an introduction to sociotechnical probabilistic risk modelling in health care.
Marx DA, Slonim AD.
President, Outcome Engineering LLC, Dallas, TX, USA. Children's National Medical Center, The George Washington University School of Medicine, Washington, DC, USA.
Since 1 July 2001 the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has required each accredited hospital to conduct at least one proactive risk assessment annually. Failure modes and effects analysis (FMEA) was recommended as one tool for conducting this task. This paper examines the limitations of FMEA and introduces a second tool used by the aviation and nuclear industries to examine low frequency, high impact events in complex systems. The adapted tool, known as sociotechnical probabilistic risk assessment (ST-PRA), provides an alternative for proactively identifying, prioritizing, and mitigating patient safety risk. The uniqueness of ST-PRA is its ability to model combinations of equipment failures, human error, at risk behavioral norms, and recovery opportunities through the use of fault trees. While ST-PRA is a complex, high end risk modelling tool, it provides an opportunity to visualize system risk in a manner that is not possible through FMEA.
PMID: 14645893 [PubMed - in process]

38: Qual Saf Health Care. 2003 Dec;12 Suppl 2:II17-II23.
Safety culture assessment: a tool for improving patient safety in healthcare organizations.

Nieva VF, Sorra J.
Westat, Research Blvd, Rockville, MD 20850, USA.
Increasingly, healthcare organizations are becoming aware of the importance of transforming organizational culture in order to improve patient safety. Growing interest in safety culture has been accompanied by the need for assessment tools focused on the cultural aspects of patient safety improvement efforts. This paper discusses the use of safety culture assessment as a tool for improving patient safety. It describes the characteristics of culture assessment tools presently available and discusses their current and potential uses, including brief examples from healthcare organizations that have undertaken such assessments. The paper also highlights critical processes that healthcare organizations need to consider when deciding to use these tools.
PMID: 14645891 [PubMed - in process]

39: Qual Saf Health Care. 2003 Dec;12 Suppl 2:II8-II12.
The measurement of active errors: methodological issues.
Lilford RJ, Mohammed MA, Braunholtz D, Hofer TP.
Department of Public Health and Epidemiology, University of Birmingham, Birmingham B15 2TT, UK. HSR&D (11H), VA Ann Arbor Healthcare System, 2215 Ann
Arbor, MI 48105, USA.
The value of research in any topic area turns on its validity. Patient safety research has revealed-or, at least, given renewed urgency to-a raft of methodological issues. The meaning and thus the value of empirical research in this field is contingent on getting the methodology right. The need for good methods for the measurement of error is necessary whenever an inference is intended and, since inferences lie at the heart of research and management, there is a huge need to understand better how to make measurements that are meaningful, precise, and accurate. In this paper we consider issues relating to the measurement of error and the need for more research.
PMID: 14645889 [PubMed - in process]

40: Qual Saf Health Care. 2003 Dec;12 Suppl 2:II2-II7.
Organizing patient safety research to identify risks and hazards.
Battles JB, Lilford RJ.
United States Department of Health and Human Services, Agency for Healthcare Quality and Research, Center for Quality Improvement and Patient Safety. University of Birmingham, UK National Health Service, Research and Development Directorate Methodology Programme.
Patient safety has become an international priority with major research programmes being carried out in the USA, UK, and elsewhere. The challenge is how to organize research efforts that will produce the greatest yield in making health care safer for patients. Patient safety research initiatives can be considered in three different stages: (1) identification of the risks and hazards; (2) design, implementation, and evaluation of patient safety practices; and (3) maintaining vigilance to ensure that a safe environment continues and patient safety cultures remain in place. Clearly, different research methods and approaches are needed at each of the different stages of the continuum. A number of research approaches can be used at stage 1 to identify risks and hazards including the use of medical records and administrative record review, event reporting, direct observation, process mapping, focus groups, probabilistic risk assessment, and safety culture assessment. No single method can be universally applied to identify risks and hazards in patient safety. Rather, multiple approaches using combinations of these methods should be used to increase identification of risks and hazards of health care associated injury or harm to

patients.
PMID: 14645888 [PubMed - as supplied by publisher]

41: Qual Saf Health Care. 2003 Dec;12 Suppl 2:II51-II57.
Video techniques and data compared with observation in emergency trauma care.
Mackenzie CF, Xiao Y.
Professor, Director, The Charles McC Mathias Jr, National Study Centre for Trauma and EMS at the University of Maryland School of Medicine, Baltimore, MD 21201, USA. Associate Professor of Anesthesiology, Director, Human Factors Research Laboratories, Faculty, National Study Centre for Trauma and EMS at the University of Maryland School of Medicine, Baltimore, MD 21201, USA.
Video recording is underused in improving patient safety and understanding performance shaping factors in patient care. We report our experience of using video recording techniques in a trauma centre, including how to gain cooperation of clinicians for video recording of their workplace performance, identify strengths of video compared with observation, and suggest processes for consent and maintenance of confidentiality of video records. Video records are a rich source of data for documenting clinician performance which reveal safety and systems issues not identified by observation. Emergency procedures and video records of critical events identified patient safety, clinical, quality assurance, systems failures, and ergonomic issues. Video recording is a powerful feedback and training tool and provides a reusable record of events that can be repeatedly reviewed and used as research data. It allows expanded analyses of time critical events, trauma resuscitation, anaesthesia, and surgical tasks. To overcome some of the key obstacles in deploying video recording techniques, researchers should (1) develop trust with video recorded subjects, (2) obtain clinician participation for introduction of a new protocol or line of investigation, (3) report aggregated video recorded data and use clinician reviews for feedback on covert processes and cognitive analyses, and (4) involve multidisciplinary experts in medicine and nursing.
PMID: 14645896 [PubMed - as supplied by publisher]